DEENA SEVA SANGHA
Srirampuram, Bangalore-21

A PRODUCTIVE, VIGOROUS AND HAPPY WORLD CANNOT RESULT FROM UNHEALTHY CHILDREN

SCHOOL HEALTH PROGRAMME

Search for evolving a relevant Scheme
(Programme Sponsored by Action-Aid)

REPORT OF A STUDY THROUGH THREE YEARS
(September, 1984 to end of 1987)

ACTION EXPERIMENT

Dr. S. V. RAMA RAO (CONSULTANT)
AND
Sri. N. G. NARAYANA MURTHY (CO-ORDINATOR)

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P E R S P E C T I V E

Health and Welfare of children are of paramount importance in any country. Everyone is agreed on this issue.

Children through their schools are easily accessible to measures related to all levels of prevention and intervention viz., Health Promotion, Specific Protection, Prompt Diagnosis and Prompt Treatment, Disability Limitation and rehabilitation. But Health and welfare activities in many schools are either absent, rudimentary or at best tackled in a few favoured schools. Where a school health program does exist, it is confined to a cursory medical screening of children present on the day by a medical attendant who mechanically fills up protocols which are ill conceived and anyway not studied by anyone who matters. Follow-up is conspicuous by its absence. There appears to be a convention that medical inspection of school children by a formally qualified doctor is an essential and major component for health intervention of school children. This idea is perpetuated by the professionals themselves and the idea of scarcity of medical personnel acts as a bottleneck in implementing the programme. Innovative and an alternate approach also are neither sought after nor considered when an alternative is suggested. Constraints of resources such as manpower, money, materials and facilities are said to come in the way of implementation.

The School Health Programme, to be effective, is a continuous ongoing intervention involving everyone concerned. Therefore it is a programme catered to the needs and problems of the child not only in school but also in the home. Health is just one component of many facets of the child's living., which contributes to his welfare and quality living. Religion, Poverty, Housing, Sanitation, Environment, Education of parents , Dietary pattern and a host of other characteristics, influence the health and behaviour of the child. Self help in matters of health should be aimed at. The child should act as the agent of change for a better quality of life in the family.

School teachers are held in high esteem by society

They constitute a potential resource of a high order . They happen to be the highest in educated manpower and if properly trained and motivated they can emerge as effective agents of change in improving the quality of future citizens. A school in an urban slum can reach and render service to pupils teachers and their families.

II. BACKGROUND TO DEENA SEVA SANGHA SCHOOL HEALTH PROGRAMME

The main philosophy adopted was that a School Health programme should be the responsibility of a team of teachers who are in intimate contact with their pupils throughout most of the day. Identification of teachers having qualities of leadership and their training and education with the ultimate aim of developing an effective self supporting system with the ultimate inputs of resources from the outside, was envisaged as most important.

This process of grooming a band of teachers has minimum involvement of doctors, drugs and dispensaries. These are components which come into the picture when health breaks down. It is now realised that lay enlightened people, like teachers and other dedicated persons interested in the health and welfare of children, when suitably trained and made knowledgeable, can take the responsibility for not only promotion of health and prevention of disease but also primary care when health breaks down. Teachers can themselves recognise the early symptoms and signs of common diseases and can either give first aid and treatment or refer cases to doctors. This approach in the long run is cheaper and often better. Further it is assumed that health is not only everyone's right, but everyone's responsibility too. It would be worthwhile to aim at informed self-care. Basic knowledge should not be confined only to doctors and kept as guarded secrets.

It should be freely shared. Pupils should also assist the teachers in the programme. Pupils who are beneficiaries should be considered not only as participants but also share the responsibility by active involvement.

THE BASIC PHILOSOPHY OF THIS SCHOOL HEALTH PROGRAMME :

a) Teachers will play the key role in the program.

b) Interventions, when health breaks-down are costly and time consuming,besides, the chances of full recovery receding.

c) Health is not just an absence of sickness, but the realisation of the full potential of the child which has, physical, mental (psychological and intellectual), social and spiritual components. This process has very little to do with doctors and dispensaries who play their part when the health breaks-down.

d) Education on health, especially, has a lot to do with the program. It is the fundamental requirement for all those concerned. Children will be involved very actively in the process and they play a major role.

e) While early diagnosis and prompt and adequate treatment are of importance, follow-up is of fundamental concern for an effective School Health programme.

f) Rehabilitation of physically and menatlly handicapped is a concern which should receive adequate attention.

g) We are aiming towards building up an increased ability of the children to be and to remain healthy within the context of their socio-economic, environmental and cultural milieu.

ORGANISATION AND ADMINISTRATION

This is laid down in the project report Ref:G(96) dated September 28, 1984 - vide Appendix I and the background paper in Appendix II.

As per this, a committee, headed by a chairman will be responsible for the implementation of the programme. This is responsible for planning, formulation of policies, finding resources allocating budgets, maintenance of accounts, reviewing progress and monitoring its day to day working. The technical knowhow will be supplied by the team headed by the chairman in his capacity as a consultant. Evaluations before, during and after periodical intervals, will also be undertaken. The consultant/expert will be a person who can assist in laying down policies, plan the operations, administer and implement the program with inbuilt evaluation. Committee members will include teachers who are in the programme.

LOCATION

Bangalore City is the capital city of Karnataka State. The Deena Seva Sangha School at Sriramapuram is located in a slum area having on roll about 5000 pupils studying from Nursery to Tenth Standard. A majority of the pupils are from lower income group living in slum. Out of the 5000 pupils in the school about 2000 pupils studying from Nursery to IV Standard, in the age group of 3-4 years upto 8-10 years are included in the health and welfare program of the school.

COMMENCEMENT

The programme was launched after a preliminary phase lasting about 3 months from September 1984. The necessity of training teachers for the job was accepted. The objectives of the training were simple. They had to be equipped with the information and skill required for the job or participating actively in the health and welfare of the school children. It was hoped that at the end of the course, required attitude will be developed and they would be oriented towards the task ahead.

Selection of teachers from among a group of 47 teachers was left to the Management. The Management was requested to select persons with leadership qualities and those working with a sense of dedication, They must love children and be interested in the child's health. Basic qualificaton of the teacher was secondary school.

The course was conducted during the school working days either before starting the school work or at the end of the day's work. Where participation of teachers was needed for demonstration, it was during class hours.

A total number of 22 sessions were held covering 30 hours distributed over a period of 3 months. The curricular contents for these sessions were worked out previously but were flexible. Changes were made according to the needs during the course. Resource persons from outside agencies were also invited as guests. They were from Bangalore Medical College and Government Dental College, St.John's Medical College and St. John's Ambulance Association.

Before commencement of the training sessions, a preliminary assessment of the participants' knowledge was attempted. This was a written assessment in the form of simple questions and answers. At the end of the course also, at the end of a talk, group discussion, demonstration or participation,they were questioned about what they understood and whether they had any doubts or questions for clarification.

The training was task oriented and some of the tasks were:

a) Recording Heights, Weights and chest measurements,

b) Inculcating proper health habits in children and correct attitude and behaviour by education and practice,

c) Inspection of children for assessment of personal hygiene of each and examination from head to foot and identifying diseases, defects and discrepancies,

d) Recognition and treatment of minor wounds and first aid in emergencies,

e) Identification clinically, signs of common nutritional disorders,

f) Recognition of children with defective hearing, vision and speech and other handicaps,

g) Identification of individual pupil in each class and section who is potentially endowed with leadership qualities and who can take responsibility.

Some of the important subject matters dealt with were :-

What is health ?

What is School Health ? Objectives ?

Why a School Health Programme ?

Child and the School

Components of a School Health programme

From school to community

Role of teachers

Health education in all its aspects

School environment - role of insects in transmission of diseases

Cleanliness and personal hygiene - good habits

Natural history of diseases - communicable diseases and prevention - Immunisation

Some very common childhood diseases - prevention, recognition and treatment

Care of eye and ear

Sanitation

Importance of diet and nutrition, housing water and supply (Appendix III)

Various methodologies and teaching techniques were made use of. Simple talks, tutorials, discussions using flash cards, flip charts , slides and movie films were resorted to.

Medical inspection of school children was also taken up during the period of training and was intended as a revision.

The Immunisation services were provided by the external health team with teachers assisting and keeping records.

The assessments,before and after the course, revealed that majority of teachers had gained in their knowledge. They had a good working knowledge of skills, such as taking height, weight, chest measurement of a child, recording temperature, dressing wound, detecting cases of malnutrition, anemia,carious tooth, skin infections, giving first aid and such minor practices.

It was difficult to measure attitudinal changes though verbally they were fit. The initial response and enthusiasm was quite evident.

Pupils participation

The philosophy behind pupil's participation has already been stated. During implementation certain bottlenecks enfolded. The school health programme was for students of Nursery upto IV standard. The maximum age was about 10 years. It was not possible to entrust them with maintenance of records, assist in screening procedures or immunization, taking Heights and Weights etc. But some of them were good at the daily appraisal and reporting of sick, recognising and reporting those who had not combed their hair, cut their nails short, brush their teeth, etc. They were also entrusted with cleanliness of the class-room which they undertook effectively and with enthusiasm. However, their role as agents, for creating better awareness on matters of health,was found to be limited.

FINDINGS

a) At the end of the course, the consultant felt that an intensive, continuous training of one week would make a better impact on the Teacher than the prolonged and interrupted course of 3 months duration.

b) Criteria for selection of teachers to this job could be stricter.

c) Activating teachers to look at the School Health Programme as their's is very difficult.

d) Active participation by teachers in the programme wanes as time passed.

e) Majority of teachers consider School Health Programme an additional responsibility.

f) Incentive does not operate favourably to the desired and expected level.

e) Continued education of teachers is not always welcomed.

f) Female-teachers had a better understanding and built a better rapport in the programme

P R O G R A M M E

The programme was flexible and had open ended objectives. Priorities and decision making was an exercise depending on observations and findings.

The components of the programme, however, received equal attention and covered a comprehensive spectrum. It included measures under Health promotion; specific protection; Early diagnosis and prompt treatment; disability limitations and rehabilitation. The measures under each of these as applicable to the implementation of the programme were :-

1) Health promotion : (Priority)

Measures

- Health Education
- Nutrition and Supplements
- Personal Hygiene
- Inculcation of good habits and health practices
- Exercises, sports, games
- Good working environment

2) Specific Protection :

- Immunization of teachers and pupils
- Protected water supply Sanitation
- Control over hawkers
- Control of flies

3) Early Diagnosis

- By observation of pupils by teachers.
- Medical Screening of all pupils and treatment of all minor ilnesses and referrals to specialists
- First-aid and emergency treatment on the spot

4) Disability Limitation - Follow-up action(priority) by complete and adequate treatment in all cases to prevent complications and sequalae
Eg: Chronic Otitis Media, Heart conditions, etc.

5) Rehabilitation - Especially in the case of orthopaedically handicapped.

Of these components, Health promotion and early recognition of diseases, defects and infirmitives with follow-up action received top priority.

HEALTH PROMOTION

It is a fairly easy task to supply information. It is much more difficult to make the recepients perceive the importance and significance of health information and the impact should show itself in a change to better health habits and behaviour. Attitudinal changes are important outcome of proper understanding, habits, behaviour and attitude relating to health, are moulded at home by perception of what elders do or do not do. Habits and behaviour become a way of living when indoctrinated in a home atmosphere and contributes to quality of life. Enlightenment by transfer of mere knowledge is a very difficult task and often frustrating. Nevertheless one takes solace when even a small measure of health habit infringes itself on the young. Evalution of the effect of health education would be very difficult.

1. Imparting essential knowledge and necessary skills for a School Health Programme is easier than inculcating the right attitude,

2. A proper screening of each child is a priority, but follow-up with complete and adequate documentation is the key for an effective School Health Programme,

3. Mere implementation of an effective programme contributes much to the Health Education of the child and parent.

Each teacher incharge, talks to his pupils for 10-15 minutes on some health topics each day before lessons commence. They are encouraged to prepare on a subject of their talk.

One of the members of the Health Team visits all sections, one each day. Inspection and inculcation of health practices on the spot on personal hygiene of each child, (such as, combing of hair, cutting of nails, cleaning noses, brushing teeth, etc,) is undertaken. The practices on the spot act as demonstrations also. Within a very short period there was a dramatic change observed in the personal hygiene of children. They came with clean washed clothes. Very soon it became apparent that children took the practices as a challenge and majority of children were ready for inspection. The active participation, by teachers senior pupils of some classes, was of utmost importance in this daily exercises.

. The inculcation of good health and practices were the concern of the entire team . Washing hands with soap and water after attending toilet, before eating was strictly enforced in the beginning and later it became a matter of routine procedure. Similarly, combing hair, washing face, taking a bath, cutting nails, etc., were part and parcel of the daily inspection and on the spot corrections.

Health education was a continued process throughout the year. Apart from the Teachers , Extension Workers, Co-ordinator and Consultant when individual problems were recognised during medical screening, priorities were identified and outside experts were brougkht in. Audio visual demonstrations and group discussions for teachers and pupils were arranged. For example, nearly 25% of the pupils examined were having carious teeth. Weekly Dental Clinics are being held regularly once a week. The doctors from Government Dental College attend to all aspects in the clinic including education on Oral Hygiene.

Nutrition Services were the next in importance. Education on nutrition were undertaken at the time of distribution. The pupils identified as underweight, underdeveloped, malnourished or with specific deficiencies were supplied daily with highly protein supplements at school. This programme became very popular. The items distributed daily during week days and working days were :-

a) Ground-nuts and Jaggery

b) Beaten rice with Jaggery

c) Grams and Dhalls preparation with masala

d) Salads with Raw Vegetables

e) Plantain with Jaggery, coconut scrapings

f) Upma etc., etc.,

The Children look forward to their morning menu. they like them immensely. The weight of each child in the programme was monitored once a month. In addition to mid-day meal, teachers distributed multivit tablets. Vit"A" concentrate, etc., in the class to those who needed, under their supervsion. The children were made to swallow in their presence.

A definite increase in weight in every child was observed.

One other important observation is, that while a number of childrem could be considered as underweight for their age, very few showed frank signs of malnutrition or specific deficiencies. It is true that most of the children came from slums and of parents were at work and mother attended the clinic whenever needed. The mothers were the bread winners for the entire family including the father. The income earned by father was exclusively his.

The daily physical culture, sports and games were organised by the teacher in charge of physical education.

As regards the maintenance of school environment and organisation of the entire school Health programme guidelines were given to all teachers. Please see Appendix IV.

In this field, the programmers adopted a philosophy of continuing the immunization measures as was in vogue prior to the introduction of School Health Programme. The City Corporation Health Authorities Family Planning Association of India acted as the agency. The teachers co-operated fully and maintained records. During the 3 years under report, preventable illnesses, for which immunizations were carried out were not reported among the children.

The Community Protective measures, like, protected water supply and their use by pupils, disposal of wastes, cleanliness of lavatories before and after use, washing hands with soap and water, received priority attention. Control of vendors and hawkers, though attempted, did not yield results to the extent desired. Flies and insects were not encountered as problems and the School Health Programme did not envisage any attack against these except through Health Education.

EARLY DIAGNOSIS AND PROMPT TREATMENT

The teachers, during their period of training, were made thoroughly conversant with the early recognition of many minor defects and diseases including detection of defective vision, hearing etc. Apart from screening by Teachers, the Consultant went through each pupil. Minor illnesses were treated on the spot. A total of 2572 pupils have been examined from head to foot and the morbidity pattern observed are set out in Appendix V. As regards pupils, who were discovered with problems of vision, hearing, nose and throat conditions, heart conditions, etc., were referred to the Specialists Very early it was seen that nearly 20-25% of the pupils had caries teeth and this demanded immediate attention. Here also a philosophy was adopted where in the pupil was directed to his Dentist or family Doctor (in conditions other than Dental) in consultation with the parents.

Since majority of parents did not have a consultant of their own, a regular dental clinic was organised at the school premises. Major and Minor interventions were available. The Experts under the huidance of the Professor of Preventive Dentistry, Prof : M.R.Shankararadhya - from Government Dental College arranged for the conduct of the clinic regularly once a week between 10.30 a.m. and 1.30.p.m.

These clinics were also the centres of health education on Oral Hygiene. While one team conducted the clinic, another member talked to pupils, with slides, flash cards, flip charts, posters etc. These yield very valuable results as observed by the improved dental conditions and oral hygiene was also a regular feature.

As regards pupils, with defective vision who were detected during their screening, they were kept ready for Ophthalmologists who came from Minto Ophthalmaic Hospital and condcuted investigations, examinations and treatment under the direct supervision of Dr. Venkataraman,Superintendent of the Minto Hospital.After the initial attenton ,cases of vision defects were directed to the hospital with a referral note. This has been working well. Philanthropists have come forward to supply spectacles free of cost.
Chronic Otitis Media (com) was another condition which had to be tackled, specially, in the colder season. Large percentage of cases after initial healing recurred. The mother was asked to give treatment regularly. These cases are being followed up. C.O.M.is one of the most intractable conditions met with.

DISABILITY LIMITATION

As a result of our early diagnosis and prompt and adequate treatment, there were very few acute cases which required follow up. Complications and sequalae, as such, we did not come across.

Our follow up programme and documentation of the follow up was given a high priority. As soon as we discovered a condition which needed major attention - the child was referred to specialist and further action taken. This may be illustrated with an example. Sashirekha - 10 years pupil of the 4th Standard, physically weak and ill-developed had a history of frequent illnessess cough, fever etc.

Medical check-up revealed a systolic murmur and was suspected to be suffering from Rheumatic endocarditis. Referrals to Jayadeva Institute of Cardiology and Catheterisation of heart revealed that the child was suffering from a ventricular septal defect . The child comes from a poor family of daily wage earners in a textile mill. Arrangements are being made for surgical interference. The operation carries risk of nearly 50% to life of the child but the prognosis, if left un-attended, is grave. The parents are now taking time to make up their mind.

Similar cases are encountered and documented.

REHABILITATION

Rehabilitation in the context of this School Health Programme means, the identification of the Physically Handicapped and Orthopaedically disabled. During screening, of a total of 2572 childern fron Nursery to IV standard 26 pupils in all were recognised. Major and Minor disabilities were classified. An attempt was made to collect all Orthopaedically handicapped pupils of the School. Out of about 5000 pupils on roll, 53 were identified. This was the first stage. In the second stage, a team of Orthopaedic Surgeons from St. John's Medical College Hospital visited the school, on invitation, and gave a thorough examination and documented individually. These case sheets were studied and an estimate of financial involvement was made to identify agencies who could come forward to assist. We were gratified to note that the authorities of Sindhi Charitable Hospital, Bangalore, came forward to help us out at a nominal cost per case. In the third stage parent-pupil-teachers meeting with Doctor was arranged, both at individual level of the handicapped pupil and at the level of all collected. This was a free discussion meeting. Many parents had misgivings. An attempt was made to clear all their doubts. Not all were convinced. As it stands today, we have rehabilitated only 12 out of 26. The task is full of difficulties and we have taken it as a challenge. We hope to succeed. The details of conditions are set out in Appendix VI.

It was observed that many of the disabled children could not attend to their classes in first floor getting up the steps of the staircase. Mothers carried them and left them in the classes and returned to take them down. Iron railings along the steps would be able to act as a support to these children and they could independently manoeuvre the steps without any assistance. Proposal was put up and the iron railings were installed. Today many of these pupils are coming up without depending on any one else. (Appendix VII).

CONTINUED EDUCATION OF TEACHERS AND PUPILS

A good built-in Library with various books on subjects of health science and journals of repute are subscribed for, including those from World Health Organisation, UNICEF, AHRTAG, London, Voluntary Health Association of India, etc. In addition the Co-ordinatir, Link-Worker, Secretary and teachers are deputed to seminars, short-term courses on health subjects and workshops etc. Slides, film shows from various agencies and demonstration are arranged and group discussions organised. Exhibitions are arranged for parents, teachers and pupils. As for the benefit from these, one can infer, that they had their impact. Parents teachers conference is a regular feature of the activities.

The pupils get health talks and demonstrations from the team as a routine. The quality of personal hygiene has definitely improved. Organising medical check-ups, dental clinics, vision screening, have also had educative value to the child and family. Details are furnished elsewhere. (Appendix VI)

DOCUMENTATION

This was an area where one had to go with caution. Too much or too little will not serve the purpose and the objective was to evolve an optimal requirement and at the same time simple, need based record of each pupil. The very first hurdle was data on identification of the child. With more than 2000 children, many with the same name, same class, same section and same initial, it was difficult. It became necessary to open a register for enlisting the names of each child in Alphabetical order with full family details also, besides others. These names got a code number which remained permanent for that child through-out. Anthropometric data, data on Immunizations, Drug and Diet Supplement, Medical Screening and Defects found with follow-up data, were provided for. Elaboration on these were kept at a minimum and all importance was given for follow-up. Blank sheets could be added when needed. These kept the cost of stationery and printing at a minimum. A sample of forms used are in Appendix VIII. These sheets were kept in an ordinary card board file with identification data on the facing sheet.

DISCUSSION

Details of number of children examined along with figures for defects, diseases, etc., are previded in Appendix V. A total of 2572 pupils had their first check-up. Many of these nearly 40% had some type of minor or major conditions which needed attention and follow-up. Some had more than one condition which needed attention. The number of revisit and re-examinations have been considerable, from a single revisit to clinic to as many as six or seven. The data on exact number is available in the health record of the concerned child.

DENTAL CARIES

The philosophy followed was to preserve the teeth and promote oral hygiene through good habits. Nearly 25-27% of the children had them in one or more of their teeth. Nursery I and II standard children (those with deciduous teeth) were the victims. Something had to be done urgently. An intense compaign of education was started. The experts from Government Dental College very kindly consented to have a weekly clinic.

A total of 1139 (old & new) examinations and follow-ups were attended to at 43 clinics. Major and minor treatments were given at the school clinic. The relief and improvement in the Dental conditions were perceptible.

EYE-CONDITIONS

Priority was given to defective visions next. The first screening was done at the first medical check-up with standard charts available in the market.Those who could read were given the usual alphabets-chart to read from a distance of 20 feet. Children who could not read had charts of animals, articles, and materials which any child could recognise. Example: a horse, goat, cycle, ball,basket, etc While this method was not a perfect one, it was helpful in detecting many and suspecting a large number After this preliminary screening they were referred and examined by experts from Minto Ophthalmic Hospital, at the school. Two camps were held and later as the number to be examined became less, children with defect and those suspected were referred to Minto Hospital and followed up. 56 children received attention including 11 who had to wear corrective glasses for refractive errors. Spectacles were presented free (Appendix VII). It was a pleasure to see some children (two) having major Myopic defects with -11 and -10 going about cheerfully.

MAL-NUTRITION

Frank cases of malnutrition were not encountered, neither were there cases of specific vitamin and mineral deficiencies with clinical manifestations, as stated previously. Even so, about 5.8% of the pupils examined at first check-up were suspected to be below average in develsopment. However, height and weight alone gave no indication of substandard growth, development or deficiency syndrome. Pupils suspected under this category were included for supplementary diet at the school. The menu has already been indicated. Weights of these pupils were recorded prior to their admission to feeding programme and follow-up, once a month, was regularly undertaken. Exact evaluation was difficult, for the maximum growth, and secondly, our supplementary feeding was not continuous. It was interrupted, due to absence, by holidays and vacations. Roughly the working days confined to 220 days in a year.

In addition to supplementary diet, the teachers were supplied with Vitamin "A" concentrate or capsules, Multi-Vit tablets and Iron tablets, and they administered them. as per instructions to children specified.

EAR NOSE AND THROAT

Chronic Otitis Media was a condition met with among 15 children and this was a difficult one to tackle. Earnest attempt was made to cure them of the condition. Only two cases got cured as evidenced by closure and scarring of the tympanic opening. Main reason in our opinion for failure could be due to not administering prescribed drugs at home by parents. No case of deafness has so far been observed during follow-up. Minor conditons of nose and throat were attended to at the School Health Clinic.

OTHERS

Two conditions of heart, one with rheumatic endocarditis and another with Ventricular Septal defect, in two pupils, are being followed up.

Two pupils, whose I Q was suspected to be low at the first check-up were referred to NIMHANS. Parents have been made aware of the condition and their responsibility defined to them. The children are being followed.

Rehabilitation of physically handicapped children was a major source of worry and everything possible is being done. Details are furnished elsewhere in this report.

Our policy regarding mass treatment and mass immunisation may be defined. The Consultant, with his vast experience in this field, was not for tackling problems on mass scale in temporary one day/two day camps as far as is feasible. He felt that there were many drawbacks and it was not in the interest of the child. Individual day-today attention was found best. This way the entire system worked smooth.

PLANNING AND DECISION MAKING

As already stated the plan of operation was flexible and started as an experiment. The decision making was an outcome of experience and not a preformulate judgement. Final decision was always taken by the team.

PARENTS PARTICIPATION

Several meetings of Health Committee, parents, teachers, pupils and others were held. Parents involvement in meetings were few, mainly because the parents were wage earners and could not make themselves available when required. Mothers turned up but very few fathers. Lack of enlightenment on the part of the mother was a handicap. The participation at these meetings by parents could have been more active.

TRAINING

The teachers were provided with information, books and journals. Very few made use of these, in spite of assignments. Initiative and thinking was encouraged at every opportunity. Pupils, however, were enthusiastic and assignements given to them were carried out with all sincerity and industry.

FINANCING AND PROVISION OF SUPPLIES AND FACILITIES

Financing was by the "Action Aid". Right from the beginning the cooperation and coordination by the management was excellent. The decision regarding income and expenditure was left completely to the team.

PREVENTIVE VS CURATIVE MEASURES

A well drawn-up School Health Programme covering nearly 20% of the population between 5 and 14 could yield very valuable results of health and nation building.

After the initial enthusiasm and very active participation, the Teachers are likely to fall into a groove or routine, which is not very conducive. A sustained interest on the part of the teacher is very essential. In order to boost up the morale and sustain the interest of the teachers, fornightly meetings, with them was a regular feature. In these meetings, problems of specific children were discussed and free opinions were called for to improve matters. This sustained the interest of teachers and acted as a forum for continued education.

These sessions of fortnightly meetings were of very great importance and played a key role in follow-up, besides gave an opportunity to School Health team to exchange ideas and pull up each other.

The curative services were need-based and the services offered, only when parents wanted. The relationship between the family and their doctor, was, as far as possivle undisturbed. Early diagnosis and prompt treatment with follow-up was a priority but the stiff dose of preventive measures was easy to administer, when once the rapport was built up. Apart from Immunization ,safe water to drink, sanitation of school, personal hygiene, were important measures which paid high dividends. Our experience show that teachers a potential source for an effective school health programme. As regards mobilising this force to its full capacity, it is possible to do so by giving them the required orientation and training. Teachers, their family, pupils and their family have been benefited by this programme in various ways of health and welfare measures.

CONCLUSION

In our opinion, a properly conceived and effective School Health Programme when launched is an asset in building up healthy nation and the money spent pays rich dividend. The key persons, in such a programme, are the Teachers who are suitably trained and motivated. There could be no single formula for a comprehensive School Health Programme. It has to be flexible and minimum inputs of doctors, drugs and dispensaries are sufficent. It is absolutely essential to educate the politicians and administrators and make them understand that health education should start in the Nursery and Primary School and should form a part and parcel of curriculum. It is only then that we can think of building up a strong and healthy nation.

S U M M A R Y

1. Properly oriented and trained teachers can be the key to an effective School Health Programme. Even so motivation would be difficult,

2. Early recognition of signs and symptoms of diseases is still a priority,

3. It would be very essential to have a proper management and follow-up of recognised condition. This necessitates suitable documentation,

4. School Health Record should be simple and useful,

5. Mass treatments, in preference to individual attention of concerned child, may not be in the interest of child,

6. It is better not to disturb the family Doctor-patient relationship unless the parent permits,

7. Health education could have little import unless the home atmosphere is such that elders at home are themselves health conscious,

8. Nutrition programmes in School - the effect on child is not upto the desired level because of frequent intrruptions as a result of the absence of the child, holidays and vacations,

9. School Health Programme to be effective should be a continuous on-going programme and the aim must be to have the project as a self supporting one,

10. Lady teachers are accepted by pupils since they build up rapport better.

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A P P E N D I X - I

Ref : G 96 September 28, 1984

DEVELOPMENT AND IMPLEMENTATION OF A EFFECTIVE HEALTH PROGRAMME FOR DEENA SEVA SANGHA CHILDREN, BANGALORE

Introduction:

A comprehensive and well thought out programme has been drawn by Dr. Ravinarayan, giving details of basic components, concepts resources etc. In this note the action for implementation of such aprogramme is highlighted. It is necessary at the outset to state clearly that the main philosophy that a school health programme should be the responsibility of a team of teachers who are in intimate contact with their pupils throughout most of the day. Identification of this team having qualities of leadership and their education with the ultimate goal of developing an effective self supporting system with minimum inputs of resources from outside is envisaged as most important in implementation. This process has minimum involvement of doctors and dispensaries. These are components which come into the picture when health breaks down. It is now realised that lay people, teachers and othe rdedicated persons interested in the health and welfare when properly educated and trained can take the responsibility for the promotion of health and prevention of diseases. They can themselves recognise the early symptoms and signs of common diseases and give preliminary treatment in case of minor illness before referrals.

Programme:

The programme is to be implemented keeping in view the modifications and alternative approaches are to be tried whenever the scheme worked out is not suitable. It is reported that altogether there are about four thousand children on the roll out of which it is expected that on an average about 10% of the pupils will be absent each day. 40 teachers are in-charge of these pupils in the activities. To start with, the children of high school are not to be included under the programme. For the present only about 2000 children studying upto IV Standard is recommended to be taken up. About 20 teachers are to be identified to look after the Health and Welfare of these children. This gives a ratio of 100 pupils per teacher. Considering the fact the pupils with acute conditions are to be tackled, it should be possible for one teacher to observe and take care of a group of 100 children. The task of identification of teachers and 100 pupils for each, will be the responsibility of the Headmaster, if necessary in consultation with the teachers themselves.

A committee will be in charge of the entire school Health scheme. The constitution of the committee may be by nomination from among the representatives of various actively participating persons including the ex-officio persons like expert and the co-ordinator. It will have a chairman, a secretary or a convener and members. The number of members will have to be kept at a minimum for effective working. This committee will form the executive board for concurrent evaluation of the scheme guiding the teachers, finding resources, budgeting and maintenance of account, annual reports, maintenance of records etc. Details of the scope and responsibilities of such a committee may be drawn up by the chairman in consultation with others.

The programme will take off with teachers' training as early as possible. The teachers' training and education will provide necessary information and skills for the achievement of the objectives . A curriculum will be drawn up and the methodology worked out to suit the various persons involved. Lesson planning wil be an important point. The curriculum among others will include the basic understanding of health and healthy living , normal , physical, mental and psychological and economic environment and its impact on health. They will also be able to identify common problems and manage them either on their own or by referrals. Knowlege training in First Aid will also be imparted. Since the physical,psychological and economic dimensions play an important role in the health of the children,it is envisaged to have extension workers who will go to field and work as links and liaisons between the teachers and the family of pupils giving an idea of home environment. It is estimated that about 300 families will have to be visited.

Staff for implementation

Teachers (Key persons) - 20

Extension workers (Full time) - 2

(Preferably ladies with a minimum of SSLC qualification with desirable experience and special aptitude to community work, specially in children's health and welfare.)

Co-ordinator - 1

(Person with the qualification of Health Inspector and diploma in a sanitary scheme at Gandhigram, TamilNadu)

Exposure - Minimum 10 years of field health operations

Desirable - Person with the capability of handling classes for teachers on health matters, one who can organise the school health scheme at grass root level and integrate it with the existing agency and general health activities of the community. A competent senior Health Inspector, person who has worked in a training centre in the health department of Karnataka Government. Retired persons are also eligible if they are otherwise physically fit.

Expert - A person who can lay down policies, plan the operation, administer and implement the program with inbuilt evaluations.

Budget:

a. Capital Expenditure

Equipment for health education and demonstration	Rs 5,000.00
Stationery and Printing	Rs 10,000.00
Establishment of a library	Rs 3,000.00
Miscellaneous	Rs 2,000.00
Total	Rs 20,000.00

Note

The required accomodation, furniture etc. are available and hence not been included.

b. Recurring Expenditure

Salaries and allowance for Expert (honorarium) Co-ordinator Rs. 1,000 x 12 months	Rs 12,000.00
Extension workers 2 @ Rs.500 x 12 months	Rs 12,000.00
Incentive to teachers transport and allowance for expert/ co-ordinator / extension workers/ others	Rs 3,000.00
Stationery	Rs 500.00
Library replenishment	Rs 500.00
Subscription to journals	Rs 300.00
Drugs, diet supplement etc.	Rs 1,500.00
Miscellaneous	Rs 3,000.00
Total	Rs 32,800.00

Note

The per capital expenses work out to Rs. 15/- per pupil per annum or Rs. 1.25 per month per pupil.

It may be noted here that a sum of Rs. 10,000 per annum from the government and another sum of Rs. 3,600 per annum from the City Corporation are already being received. These resources can be utilised for the recurring expenses budgetted. A balance of Rs. 16,400 will have to be covered from other sources in addition to resources needed and budgetted for capital expenditure of Rs.20,000.

A free dispensary with a doctor and compounder with necessary budget for drugs etc. are in position. This can be made use of without incurring any extra expenditure for immediate and minor curative services.

Conclusion

An all important programme like the health and Welfare of school children, is to be implemented with an idea of resorting to long term benefits, emphasis has been laid down on imparting education and skills to the teachers with minium involvement of doctors and curative services. This is with an idea to develop, a self supporting scheme involving mainly the teachers as key persons with minimum inputs from outside resources. Evaluation will be able to throw light on the achievements and realisation of objectives of such an experiment.

A P P E N D I X . II

A. School Health Programme
(For Deena Seva Sangha School Children, Bangalore)

A suggested process for evolving a relevant scheme :

A. Some Basic Concepts

a) We are aiming towards building up an increased ability of the children to be and remain healthy within the context of their socio-economic and cultural environment.

b) Health is not just the absence of sickness, but the realisation of the full potential of the child whch has physical, mental (Psychological and intellectual), social and spiritual aspects.

c) This process has very little to do with doctors, drugs and dispensaries who play their part when health breaks down.

d) This process has a lot to do with educational programmes for health in which the life workers, teachers and children will play a major part.

e) Outside resources should be drawn up to provide information and skills for this process, which are internalised by a group within the institution so the process becomes a part of the institution.

B. Components of the Programme:

(These are a few suggestions. Others can and should be added on as the programme evolves).

1. The School environment - Provision of basic facilities like safe drinking water, clean, simple and usable latrines (low cost technologies exist), basic cleanliness of premises, a balance between nature (greenery) and concrete structures.

2. The Teachers - A commitment to prepare children for living not only to subjects or exams (at least a small core group)

    a) They must have a basic understanding of

    - health and healthy living;
    - common minor illnesses of children;
    - normal mental, Physical and psychological, and social development and problems associated with it.

b) They must have skills in identifying problems related to the above.
c) They must be able to manage simple problems either on their own or refer it to the necessary agency.

3. Children

Children to be animated in groups by teachers to discuss understand health issues using methodology given in

a) Child to Child Programme (TALC)

b) Helping Health Workers Learn (David Werner)

- Using their own health problems and those of younger children in the family as starting point for discussion/activity

- Here to it should be initiated in small guoups of interested children e.g., Scouts/Guides or as part of science education

- Group activities like nutrition garden, market surveys, visits to institutions, discussions with guest resource people etc.

4. Medical Support

a) Regular screening programmes to identify early diseases/disability problem through

i) regular medical check-up;

ii) Specialist camps: Eye, TB, ENT, Dental, Skin and Leprosy etc.,

b) Regular Immunisations : DT/TT/TABC etc.,

c) Follow-up of illnesses/problems detected by the above method (through doctor in dispensary or referrals to other hospitals and specialised agencies).

5. Health Education

Regular large group or class room level sessions of health education on relevant themes identified by above activies can be introduced into school curriculum. These could be film shows, exhibitions, talks and demonstrations by trained personnel from other agencies.

6. Counselling Services

For psychological and social problems involving children and their parents.

C. Resources

1. Government Dental College,
   Bangalore

2. Minto Opthalmic Hospital

3. Department of Community Medicine :
   St. John's Medical College
   Bangalore
   Tel : 565435 Ext. 230

   (Advantage: They are Kannada and Tamil speaking)

4. Child Guidance Centre Department
   pf Child Psychology
   Department of Community
   Psychiatry, NIMHANS, Bangalore

5. Children's hospital
   Vani Vilas Hospital
   Bangalore

6. Victoria Hospital
   Bangalore

7. Jayadeva Institute of
   Cardiology
   Bangalore

8. Department of Community Medicine
   Bangalore Medical College
   Bangalore

9. Bureau of Health education
   Dept. of Health & Family
   Welfare Services
   Ananda Rao Circle
   Bangalore- 560 009

10. Institute of speech & Hearing
    Bangalore

D. Some Steps in the Process :

i) Identifying core group and their orientation.

ii) Core group to contact resources and establish rapport/liaison.

iii) Orientation and training of teachers.

iv) Preliminary assessment of problems by teachers.

v) First medical check-up and starting cumulative record for all children.

Ongoing/Continuous Programmes

i) Routine check-ups and specialist camps.

ii) Teachers discussions (guest lecture programmes).

iii) Health Education Programme- films, demonstrations etc.

iv) Group activity with children

Some Reading

i) Where there is no Doctor

ii) Helping Health Workers Learn

iii) Health Text-book - CBSE

iv) Child to Child Newsletters

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APPENDIX III

SCHOOL HEALTH PROGRAMME - TRAINING OF TEACHERS

(Dena Seva Sangha)

Duration of Training: 30 hours of classroom

Teaching and demonstrations spread over conveniently over a suitable period of weeks without hindrance to the normal working of school.
On job training of teachers in the health activities and medical check-up along with maintenance of health records and documentation.

1. Contents : Introduction to School Health :

a) Historical development and background

b) Importance

c) Objectives

d) Problems - General and specific facts and figures, population, education, morbidity and mortality- health indices

e) plans , profiles and perspectives, organisations and priority, job responsibilities , role of teachers - parent - teachers association, Link workers, co-ordinator etc.

2. Health Promotion :

a) Health Education

b) Nutrition Diet

c) Exercise, rest and recreation

d) Personal Hygiene

e) Habits (daily) and behaviour (addiction) etc.

f) Mental Health

g) Good working environment in school (classroom) and family (home)

3) Specific Protection : Individual and community measures

a) Immunisations - all aspects

b) Protection of teachers,pupils and family members

c) School environment including classroom

i) Site of location

ii) Building, light, ventilation, floor, roofs, doors, windows, colour scheme, black-board, seating etc.

iii) Drainage

iv) Play grounds

v) Water supply

vi) Lavatories, urinals etc.

4) Nutrition and Diet : Mid-day meal, menu, balanced diet, mixed diet, low cost diet, malnutrition, manifestations and management, food hygiene and food preservation.

5) Protection and Prevention : Disease carrying insects, rats and bandicoots, microbes etc.

6) Early Diagnosis and Treatment :

a) Knowledge of the natural history of the disease, especially, infectious diseases, malnutrition, application of the principles of prevention at all levels, namely, primary, secondary and tertiary, Disease agent, environment and susceptible host.

b) Early recognition of disease (signs and symptoms) occurence, infectious agent, reservoir and source, mode of transmission, incubation period, period of communicability, susceptibility and resistance, methods of prevention, control , treatment etc.

c) First-aid and Emergency, common childhood diseases, minor ailments and treatments - care of the sick

d) Detection of the deaf and defective vision, caries teeth , pus from ears, care of eyes, ears, mouth, skin etc.

7) School Health Record : Documentation- collection of data, recording, maintenance and follow-up etc.

8) Miscellaneous : This will include topics not concerned above but gathered in feed backs from teachers during the course and session of training.

9) Emphasis throughout the course is laid on, on the job training and every available method of teaching.

APPENDIX IV

Teachers - Duties and Responsibilities - Brief resume

Teacher : How do I organise my School Health Programme in the class-room and for my pupil ?

My Concern :

I. Class-room

II. Pupils

I. Class-room:

a) Cleanliness

b) Light and ventilation

c) Black-board

d) Seats

e) Drinking water supply

f) Lavatory and urinals

II. Pupils :

a) Diet and health supplements for children

b) Immunisation

c) Personal Hygiene

d) Exercise, Health and recreation

e) Health Education

f) Follow-up of growth and development

g) Early recognition of diseases and infirmity

h) First - aid and emergency and treatment of minor ailments

i) Assistance in periodical medical check-up

j) Recording of height, weight and chest measurements

k) Maintenance of diary

I. CLASS-ROOM : Items a, b, c, d, e, f

For this select senior students who can take up the responsibility

A. One to be kept in charge of cleanliness, light and ventilation, black-board, seats. He may be designated as " Tidy Officer ".
His job responsibilities:

a) He will arrange to have the floor swept, windows and doors dusted and kept open, black-board cleaned, chalk, duster and attendance register kept ready.

b) Seats to be arranged suitably as per instructions of teacher, dusted etc.

B. Another student will be in charge of drinking water supply to pupils,. Each class-room(CR) will have a separate utensil / pot with lid and tap. He will have this cleaned daily and filled with clean potable water. Cups for drinking and cleanliness is also his responsibility. It will be a good idea to keep one glass for each student and the student shall be the custodian of the cup and its cleanliness.

3) CLEANLINESS OF LAVATORY

If urinals and lavatory are sufficient in number each class may be alloted the lavatory and urinals specifically. One Pupil may be kept in charge. If this cannot be organised, the headmaster concerned will appoint one tidy officer for the whole school premises and cleanliness of lavatories etc.
The appointment of pupils for each of the above jobs nmay be for a minimum period of 1 month's duration or as long as the teacher feels necessary. It would be a good idea to give the responsibilities to all pupils by rotation if feasible.

PUPILS : Diet and Diet Supplements for Children

DIET : If there is a mid-day meal programme - the headmaster will make suitable arrangements to organise this activity paying attention to its purchase, transport, preservation of raw materials and quality, quantity, preparation, distribution, their health, training to handle food etc., should be taken into account.

Extra care should be taken about food hygiene from the time it is purchased to the time it is consumed by the pupil.

The following foods are rich in protein and may be adopted, if feasible - preparation of wheat, sojee(rava) , green gram and dal, combination of rice and dals (one day dosai, bisi bele bath), kosumbari, usli, heasrabele and kadale bele payasa, vegetable rava bath etc.

DIET SUPPLEMENTS:

In this category, we may consider the administration of (i) Vitamin A concentrate

(ii) Iron and folic acid- these are supplied free

(iii) Multi- vitamin tablets

(iv) Other mass treatment for promotion of health eg. de-worming, for scabies, de-lousing

Vitamin A concentrate : This is a Government of India programme. Vitamin A concentrate of 2 lakhs of units is administered to each pupil once in 6 months. Administration can be undertaken by the teacher in charge and entered in the school health record of the pupil.

Iron and Folic Acid : One tablet once or twice a week to be administered as per instruction of the School Medical Officer (SMO).Constipation, diarrhoea, in some children may result.The teacher has to be watchful for taking appropriate action in this regard. Iron when administered will cause stools to turn black in colour. There is no need to be anxious.
For pupose of treatment of children suffering from anaemia, dose of iron and folic acid wil have to be regulated appropiately under the guidance of the School Medical Officer.

IMMUNISATIONS : This programme should be organised by the head of the institution in consultation with the concerned teachers. Schedule of immunisations is given here-under for reference. This schedule applies in general but for specific cases and circumstances, SMO should be consulted.
The immunisations are conducted against the following child-hood diseases.

1. B.C.G. - Vaccination against T.B.
2. Triple Antigen - Against Diptheria, Whooping Cough and tetanus.

These vaccinations are normally conducted in infancy and pre-schoool age and it is the parents responsibility.

Age at which done	Protection against	Vaccine
0-1 month (only one dose)	Tuberculosis	BCG
3rd month (1st dose)	Poliomyelitis Diphtheria Pertusis(whooping (cough) Tetanus	Oral Polio Triple Antigen
4th month (2nd dose)	Repeat as at 3rd month	- do -
5th month(3rd and final dose)	Repeat as at 4th month	- do -
9th month(only one dose)	Measles	Measles vaccine
18th month	Booster/one dose Polio, D,P & T	

Note: If the child has not been protected against any disease at the time of entry into school during pre-school years, it is necessary to start the schedule of immunisation from the beginning as per schedule(BCG 1 dose), Triple antigen (3 doses at intervals of 1 month each)

For any clarification please consult the SMO or the nearest Official or doctor of the Health Department.

6th year (School Entry)	repeat one dose of Oral Polio and one dose of D,P,T and typhoid 1 ml.
10th year(leaving 4th Std.)	Repeat booster against Diptheria and Tetanus
After 10th year	Repeat tetanus toxoid once in 5 years

When immunisations are conducted, it is generally observed that the child may have pain, slight fever etc.. Normally reactions to immunisations are rare. One day rest following the administration is desirable. If conducted on a Saturday, Sunday will be a holiday. For reduction of pain and fever, plain Aspirin tablets 75 mg. depending on the age of the child may be needed. Consult any SMO or Doctor.

PERSONAL HYGIENE : This is another important field where-in a dedicated teacher can do a lot and improve the general standard of every pupil under his care.

Every morning the teacher will pay attention to the following items of each pupil. He may so organise that he entrusts the responsibility or responsibilities to two or more senior students who command the confidence of other students. These students can observe each and everyone of their classmates and report to the class teacher as soon as he enters the class.If the class consists of a small number of pupils the teacher can organise more effectively.

ITEMS TO BE INSPECTED AND SUPERVISED

1. Dress - Clean/Dirty	: Action to be taken, if dirty: To educate the child and the importance of clean clothes should be impressed. Clothes which are dirty may be the source of many infections with mites (scabies),louse(pediculosis) and other disease bearing organisms, such as Typhoid, cholera , diphtheria etc
2. Hair - Combed/not combed (Teachers should make arrangements to have the hairs of those pupils not combed)	: Hairs can harbour lice , scalp can get ring worm infection, dandruff, scabies etc. Daily washing and combing of hair with/without oil - apart from the aesthetic effect keeps many diseases away
3. Hands (Clean/not clean)	: Contamination of hands with faeces can transmit many diseases, if food is eaten without washing hands. The pupil should be asked to wash his hands with soap and water and then enter the classroom

4. Nails (Cut/not cut) Dirty/ not dirty	: The nails of both hands and feet must be kept trimmed. Many disease causing organisms can be harboured in the crevices under the grown nails. The teacher should impress upon the pupil that diseases like typhoid, cholera, diarrhoea, dysentery, polio jaundice can be caused by unkempt hands, fingers and nails. If necessary , the teacher should trim the nails.
5. Skin : Clean/boils, ulcers, injuries, ring worm, de-pigmented patches swelling etc.	The teacher should examine skin after the pupil takes off all his clothes. Impress on the pupils that daily baths should be taken. Any minor abnormality such as injuries, ulcers,boils, should be treated by the teacher himself. De-pigmented patches should be examined for touch pain and sensations of hot and cold (to eliminate leprosy) Anything beyond his capacity should be brought to the notice of the School Medical Officer.

6. Mouth ; Lips, tongue , teeth and gums

Our mouth happens to be the gateway for all that we eat and drink. As a cavity it accommodates all what we consume and is liable for misuse. The teeth masticate and break up food and the tongue turns the food and feeds food to come in between the teeth for proper mastication while the saliva keeps the food lubricated with its fluid and enzyme contents for the purpose of digestion and assimilation. The lips when closed confines contents of mouth without allowing food to get spilled.

The tongue, besides the mechanical function of turning the food for mastication is also a sensory organ for appreciating the taste and defending the body against excesses of temperature, salt, bitterness, pungent, chilly and hot stuffs. et.c.

It is very important that such an anatomy which is always liable to be abused is kept clean with proper attention at least twice in a day - once after getting up in the morning and a second time just before going to bed. Proper brushing of teeth, massage of gums, cleaning surface of tongue and buccal mucosa, gargling and washing the cavity of mouth should be done properly.The child in the school should be taught how to brush and clean the teeth and mouth.

Caries of teeth is the commonest finding among the school children. While the exact cause is still uncertain, brushing and cleaning, restriction on sweets, chocolates, sticky food are important measures of prevention of caries.The teacher educates the children on all aspects and demonstrates the proper way. During his inspection, if a child has not brushed his teeth, he would forthwith get it done.

Bleeding and ulceration of gums is of the manifestation of Vitamin C deficiency (Scurvy) which can be prevented by a daily intake of vitamin C rich foods like lime pickles, amla, oranges and other citrous fruits. It should be understood that Vitamin C is a soluble vitamin that can be destroyed by heat. Angular stomatitis or crow feet like ulcers at the angles of the mouth where the two lips meet on either side, a glazed majenta red tongue is a sign of Vitamin B deficiency, especially riboflavin. The teacher should recognise these features of caries teeth, bleeding gums, angular stomatitis, glazed and majenta red tongue and report to the School Medical Officer for subjecting the child to treatment. Cracked lips should be treated with any greasy substance like vaseline.

7. Nose and Nasal cavity ; Cleanliness is all important. A child with a running nose, red and watery eyes, jittery in behaviour may be coming down with measles or suffering from allergy. The School Medical Officer should be notified. While the child is washing and brushing teeth before going to bed, it should clean its nose thoroughly by cleaning the nostrils and removing all secretions. Nose harbours the organ of smell. Nose protects us by warning signals when noxious and poisonous vapours or conatminated air is in the offing. It allows cold atmospheric air to warm up before it reaches the lungs.

8. Eyes : The teacher is specially in a position to observe the child's sight and vision. Any difficulty in reading the text or what is written on the board should give a clue. Children sitting on the last benches who are very inattentive and diverting the attention of others by their pranks are perhaps not able to see or hear properly. The teacher should

have the eyes and ears of such children examined. The eye test chart is provided. The teacher should screen the vision. Apart from vision testing care of eye is very important.

The teacher should educate the children always to keep the eyes washed and cleaned. Foreign bodies in the eye, injuries while playing (fireworks, bow and arrow, gilli dandu) are frequently met with. The teacher should be equipped to deal with such a situation immediately and refer to the doctor when necessary.

9. Ear - Common conditions are wax in the ear. The ear needs cleaning when wax accumulates. This should be attended to by the School Medical Officer. Another condition is the pus from the ear. This should be treated forthwith. If neglected, the child may come down with tetanus or become deaf in course of time. The School Medical Officer should be consulted and action taken without loss of time. Keeping the ears clean while bathing must also be taught to children.

10. Smegma: In boys, the teacher should educate them about the accumulation of smegma below the fore skin of the penis. While taking bath daily the foreskin should be drawn back and cleaned. The girls should be educated about the normal physiological functions at puberty. In children who cannot do this due to tight fore skin the Doctor should be consulted.

Perennial Hygiene: In the girl children, especially those who have started having their monthly periods, this is important. The girls should be educated about the normal physiological functions at puberty, and the changes in the body that one may expect. It is necessary that the girls should keep themselves clean, especially during period by daily bath and use clean napkins for absorption of blood flow. If dirty clothes are used or if perennial hygiene is neglected there is every likeli-hood of catching infections of the re-productory tract.

Exercise and Recreation ;Rest ; For the full growth and development of the child physically and mentally, exercise rest and recreation are as important as good nutritious diet. Sports and athletics should be encouraged and incentives instituted. The play ground of the school should be maintained trim. A separate physical culture instructor in schools having a large number of children is a must. While formulating the teaching schedules of each class, priority consideration should be given to suitable rest pauses, exercise and recreation.

Seating in Class-room ; In order to develop good poise and encourage a good posture while sitting, it is necessary to provide proper seating to the child. The principles to be observed are ;

The feet of the child should rest squarely on the flooring leaving free space between the seat and under the knees. This will enable the child to have free circulation and does not get numbness and discomfort.

FIG: 1 FIG: 2 FIG: 3 FIG - 4

The desk in front should be so placed that the child does not have to bend forward to take notes and at the same time there should be adequate leg space and knee space.See Fig 1

The back rest should be straight with full support to the back when the child sits. See Fig. 2

These two should be in the same line. They should neither overlap nor have too much of space in between.(See Fig 3 and 4) . For any clarification of doubts consult experts in the field.

Black-board ; Health Education of Pupils

The teacher should prepare health slogans in the language best understood by the pupils and display in the class-room. A number of them prepared and kept may be displayed by rotation once in a week. This task may be entrusted to a senior student. The teacher should also give a health talk at least once a week with flash cards, flip charts flannel graph, 35 mm slides, film strips and films on subjects of health promotion and prevention of diseases.

The topics should be relevant - Communicable Diseases, Environmental Sanitation, Nutrition and Diet etc. should form the basis. The methods and tools of health eduaction should be designed and displayed in such a way that they are most effective. Tradition, culture, conventions, beliefs etc should as far as possible be given due consideration and used for the maximum advantage. These patterns of living involving culture, convention traditional beliefs and traditional practices can usually be classified into three categories. First one , those that are beneficial (food and festivals, daily routine baths, washing hands and feet etc.) be encouraged and used to the maximum extent. To the second category belong those practices which are harmless, though not useful (poojas, prayers, talismans when undertaken in addition to health education).

These practices should not be condemned. They are best left alone. The last category included those which are harmful. Examples like, not getting children treated for measles on the plea that Goddess Matha or Devi will get angry, resorting to harmful remedies, etc. Education to discontinue these and persuation to see that proper attention is given will in due course of time will yield fruits.

Follow-up of growth and development of the child: It is the teacher's responsibility to make entries of height, weight etc., in the school health record of the child. A copy of the school health record is furnished in the appendix for reference. The teacher should compare with the standard provided and they should bring to the notice of the School Medical Officer, those students who fall below the standard, physically as well as mentally.The matter should also be taken up with parents. However, the teacher should realise that it is more important to follow-up the adverse finding and restore the condition to normal than were entries of anthropological data of the child. Any amount of data with no follow-up is of little use.

Recognition of diseases and infirmities: Gross physical and mental ailments are always recognised and when these fall into the category of acute illness -the child will not be seen in the school or by teacher. When a child which is regular in attendance absents continuously from classes, the teacher's duty is to report to Link-worker and Co-ordinator and the teacher himself will try to contact or visit the family and find out the circumstances. This builds up very good rapport with parents. If the child is ill, the teacher or School Medical Officer may be able to help by providing data and help in securing proper medical aid and referrals to specialists.

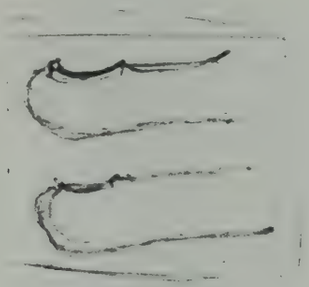
Those who attend the class and without being disabled or bedridden are victims of slowly advancing diseases or chronic illness which may ultimately lead to permanent disablement or death are the most important ones and the teachers sagacity in recognition of these insidious sufferings pay rich dividends. Some of these are listed here under :

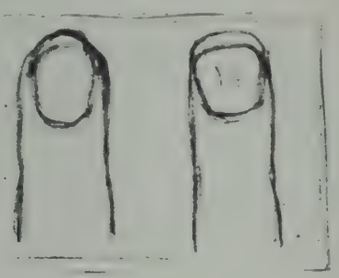
1. A child is absent irregularly and often - find out the cause Eg: Fever and Joint pains may be Rheumatic in origin, School medical officer should be notified. Proper treatment of episode followed by preventive treatment with penicillin injections will cure the disease and prevent future catastrophic complications.

2. Child which is breathless even normally or with little physical effort without fever may be having respiratory or heart trouble.

3. Blue lips, blue finger tips indicate heart abnormality. A mixing of pure and impure blood in the heart or lack of oxygenation in the lung.

4. Finger tips having clubbed appearance indicates a long standing and slowly progressing serious condition of lungs.





5. A child not responding to call of his name frequently, which looks dull and expressionless may have a hearing problem. Pus coming out of ears or enlarged lymph-glands in the front and back of the ear or in the neck need immediate attention (children with pus from ear should be watched fully against Tetanus).

6. A child which reads with the text very close to its eyes or not being able to take down what is written on the board, the teacher should make it a point to ask the students to read with what is written on the board or call for those who cannot make out. Pupils suspected of defective vision should be tested with charts and followed up.

7. Child with constant watering of eyes -(tear glands problem)

8. Children with dryness or foamy appearance in the whites of eyes (vit.A deficiency)

9. Red eyes with plenty of secretion, not able to open eyes in light, pain (sore eyes)

10. Red eyes with scratching but not secretions and not painful (allergy)

11. Boils at the root of hairs in the lid (stye), ulceration of lids or falling of hairs in the lid with swelling of lids (Blepharitis). Any deviation from normal eye should be immediately attended to

12. Child which limps at walking or running, abnormal gait while walking, wasting of muscles in the region of legs or arms, hands or foot.

13. Child with pale nails or inner eye lid.

14. Child which is inactive, apathetic and little interested in what is happening around.

15. Child with chronic cough, lean, fever of low grade.

16. Child not gaining weight and malnourished.

17. Child scratching continuously(scabies), scratching its scalp often(lice)

18. Child with patches of discolouration of skin(fungus) having round or oval crusts (ring worm) patches of discoluration and insensitive to touch, pain, heat and cold (Leprosy).

The teacher is trained to treat ailments. He should treat such cases as he can tackle and refer others to School Medical Officer. It is important for the teacher to know what he should not do much more than what he can do. His action should be guided by what is best for the pupil under the circumstances.

First Aid and Emergency: The teacher is trained to give first aid and act in emergency. The "FIRST AID" text book published by St. John's Ambulance Association gives details and should be accessible to the teacher at school.

He must own his copy. The purpose of this Manual is not to repeat what is given in the first aid book.

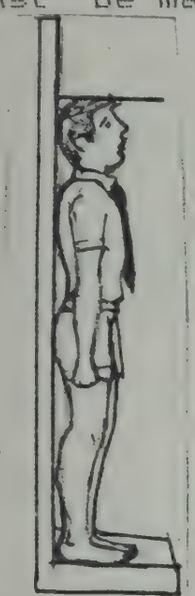
Assistance to School Medical Officer at the time of periodical -Medical Check-up:

The concerned teacher should be at hand when his pupil is getting a medical check-up. The teacher can give detailed history and information about the pupil under his charge.

A record of the pupil maintained-upto-date, is a valuable record for the School Medical Officer, and the pupil. It should be preserved carefully.

Any clarification or doubts in respect of the Health Record of the pupil, its design, maintenance, follow-up etc.,may be obtained from the School Medical Officer.

Recording of height, weight and chest measurements: The child should take off his foot-wear and cap, if he is wearing. He must be made to stand straight with both feet in opposition and head held straight, (jaw to be horizontal). The height should be noted with a stiff scale.



Weight: To be recorded with light clothing (underwear knicker and under shirt). Wait till the scale comes to a halt and then record. (better to use the same scale every time).

Chest Measurement: Remove the under shirt. Take measurements at the level of nipples in front and at the same level behind. It is necessary to observe that the tape do not get caught
by the tip of the shoulder blade below.

Ask the child to breath out completely (it may be necessary to have this practised twice or thrice before taking the measurements), note the reading on tape and then ask the child to inhale deeply and at the same time relaxing the hold on the tape. At the maximum reading - note the measurement record.

The teacher with a little practice can take these measuraments quickly and accurately.

Diary : This is an important record, of the pupils, maintained by the teacher, wherein the teacher enters his findings of day to day observations about pupil's health. If the diary has to serve its useful purpose, the teacher should fully realise the significance of such a document and its entries should be carefully and diligently made.

APPENDIX V

CLASSIFIED DATA ON DEFECTS, DISABILITIES, AND DISEASES

Sl. No.	Diseases, defects & disabilities	No.with defects, disabilities and diseases	percentage to No. examined	percentage to total number of defects etc.	remarks
1.	Dental abnormalities	699	27.18	65.08	Total No. on roll=2787
2.	Defective Vision	71	2.76	6.61	Total No. Examined=257
3.	General dability, Mal-nutrition, Angular Stomatitis, etc.	151	5.87	14.06	Not Examined = 215
4.	Skin: (scabies, injuries, Ulcers, etc)	40	1.56	3.72	
5.	Physically Handicapped	32	1.24	2.98	
6.	Ear nose and throat	34	1.32	3.17	
7.	Heart	15	0.58	1.47	
8.	I.Q. Low	5	0.19	0.47	
9.	Congential defects	2	0.08	0.19	
10.	Lymphodenopathy	1	0.04	0.09	
11.	Others	24	0.93	2.23	
	Total :	1074	41.75	100.00	

APPENDIX VI

SERVICES RENDERED WITH STATISTICAL INFORMATION

C L I N I C S

I a) D E N T A L :

i)	No. of Weekly Clinics held	:	43
ii)	No. examined, treated and advised (Old & New)	:	1139
iii)	No. given permanent filling with Silver Amalgam	:	53

b) EYE :

i)	No of Clinics held	:	2
ii)	No. examined, treated and advised	:	60
iii)	No.provided with Spectacles free of cost	:	11

c) PHYSICALLY HANDICAPPED :

a)	No.of Clinics held	:	1
b)	No.undergone Surgery	:	1
c)	No.examined, treated and advised	:	26
d)	No.undergone Surgery and issued with Callipers	:	4
e)	No.issued Callipers	:	7
f)	No.advised Physio Therapy and Exercise	:	7

d) DIET AND DRUG SUPPLEMENT PROGRAMME :

a)	No.of days of programme of operation	:1985-86	97
		:1986-87	193
		;1987-88	122
	Total to be fed	;1985-86	43
		:1986-87	38
		;1987-88	38

b) Absentees percentage :1985-86 25.7%

:1986-87 24.0%

:1987-88 26.2%

c) Drop-outs :1985-86 4

:1986-87 7

;1987-88 18

III. TRAINING :

a) In "First Aid " to teachers of School Health Programme by St. John's Ambulance Association.

b) The extension Worker in "Malnutrition" and "Child Care" at Bangalore Baptist Hospital.

IV. HEALTH EDUCATION

a) Class visits each day for demonstation and correction in personal hygiene .

b) Teachers talk daily in classes on health subjects.

c) On-going exhibition of posters on health, in the Co-ordinator's Office and CWCT Hall.

V. M E E T I N G S :

a) Health Committee ; 14

b) Teachers (weekly) : 15

c) Teachers KPS - TPS : 19

d) Parents - Teachers ; 4

VI. R E F E R R A L S

1) Dental ; 2

2) Ear, Nose and Throat ; 2

3) Eye : 11

4) Heart : 11

5) Medicine	:	1
6) Obstretics & Gynaecology	:	1
7) Orthopaedics	:	5
8) Paediatrics	:	11
9) Psychiatrics	:	1
10) Skin	:	2
11) Speech and Hearing	:	3
12) T.B. Sanatorium	:	1
TOTAL	:	51

These patients were referred to the following Premier Medical Institutions for investigations treatment and advice.

1) Dental College
2) ESI Hospital
3) K.C. General Hospital
4) Minto Opthalmic Hospital
5) NIMHANS
6) Institute of Speech and Hearing
7) TB Sanatorium
8) Vani Vilas Hospital
9) St. Martha's Hospital
10) Sindhi Charitable Hospital

VIII. SPECIAL TREATMENT

On 7-4-86, 21 inmates of Sri. Sadanand Children's Home were treated for anti-scabies with Benzyl Benzoate lotion.

IX. Hand railings were got fixed on the stairs leading to first floor on either side of the main building for the benefit of the physically handicapped children to climb up and climb down without anybody's assistance.

A P P E N D I X -VII

LIST OF DONORS

1.	Mr. Mukesh C. Shah	Bangalore	11 spectacles
2.	Mrs.Garudachar	Hyderabad	Rs.100
3.	M/S Association for the Physically Handicapped	Bangalore	Rs.500

The above two donors money was used for fixing up railings.

4.	Dr. Leela Sudarshan	Bangalore	Rs.500(for drugs)

LIST OF EQUIPMENT ACQUIRED

1.	Slide Projector	-	1
2.	Overhead Projector	-	1
3.	16 mm R.C.A Sound Projector	-	1
4.	Adult weighing machine	-	2
5.	Minor equipment/ Instruments for minor surgery and investigations etc.	-	

DEENA SEVA SANGHA (Regd.)

Seva Ashram, 5th Main Road, Srirampuram, Bangalore-560 021.

SCHOOL HEALTH PROGRAMME

NAME OF CHILD	:	MALE/FEMALE
AGE AND DATE OF BIRTH	:	
FATHER'S NAME	:	
„ OCCUPATION	:	
„ EDUCATION	:	
„ INCOME/P.M.	:	
FULL ADDRESS	:	

NO.	DATE	YEAR	CLASS

No.

Date.....

GROWTH RECORD

Date Month & Year	Height in Cms.	Weight in Kilos.	Chest measurement in Cms.		Remarks	Recorded by
			Inspn	Expn		

IMMUNISATIONS

Primary					Booster		Remarks
Date Month & Year	Nature of Antigen	Doses			Date Month & Year	Nature of Antigen	
		1	2	3			

Diet & Drug Supplements

(Vit. A., Etc.)

Date & Year	Type of Diet or Drug Supplement Offered	Quantity or Dose	Remarks

REMARKS : (Eye Sight, Hearing, Nose, Throat, Mouth, Teeth, Skin, Etc.) **

** (Only abnormalities to be recorded – if normal no record need be made)

Diseases, Defects & Others

Date Month & Year	Diagnosis or Complaint	Action taken	M.O's notes with initials

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BIO-DATA OF AUTHORS

Dr. S.V. RAMA RAO

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Experience	:	Public Health, National Programme, Research and Administration, Teaching Etc.,

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BIO-DATA OF AUTHORS

Sri. N.G. NARAYANA MURTHY

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